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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,560	12/08/2004	Koichi Sato	1232-5557	2678
27123 7590 01/08/2008 MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			EXAMINER NILAND, PATRICK DENNIS	
			ART UNIT 1796	PAPER NUMBER
			NOTIFICATION DATE 01/08/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/517,560

Applicant(s)

SATO ET AL.

Examiner

Patrick D. Niland

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

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1. Claims 3 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. Claims 3 and 11 recite an "average primary particle size". It is unclear what type of average is intended, e.g. weight, number, z, etc.

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-6 and 8-11 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-21 of copending Application No. 10517865. Although the conflicting claims are not identical, they are not patentably distinct from each other because, although the claims differ somewhat in scope, the copending claims, particularly claims 1, 2, which claims the instant micelles, 3, 4, which claims the instantly claimed block copolymers, 5, which encompasses the instantly claimed coloring

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materials would have rendered the instantly claimed inventions obvious to the ordinary skilled artisan at the time of the instantly claimed invention due to the large overlap in scope.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Claims 1-6 and 8-11 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of copending Application No. 10/931776. Although the conflicting claims are not identical, they are not patentably distinct from each other because, although the claims differ somewhat in scope, the copending claims, particularly claims 1-8, 12, which encompasses the instantly claimed coloring materials, would have rendered the instantly claimed inventions obvious to the ordinary skilled artisan at the time of the instantly claimed invention due to the large overlap in scope..

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4, 6, and 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 5085698 Ma et al..

Ma discloses ink jet inks and printers containing them containing aqueous compositions of pigment, which falls within the scope of the claimed "solid coloring material", "dispersed in an AB or BAB block copolymer" which falls within the scope of "enclosed in a micelle formed of a block copolymer". It would appear that the patentee requires all of their pigment particles to be dispersed in the block copolymer which meets the limitations of the instant claim 2. See the abstract and entire document. The particle sizes of column 7, lines 22-26 falls within the scope of the instant claim 3. The patentee described using their inks as ink jet inks. The instant specification, page 27, lines 13-19 is taken as evidence that Ma's use of their composition in an ink jet device is evidence that the composition of Ma necessarily and inherently has the parameter of the instant claim 4. See MPEP 2112. Both pigment and polymer appear to be uniformly dispersed in the method of making the compositions of the patentee. The method of the patentee therefore falls within the scope of the instant claim 6. The ink jet printing disclosed by the patentee and the ink jet printer used fall within the scope of the instant claims 8-11.

8. Claims 1-4, 6, and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 5085698 Ma et al..

Ma discloses ink jet inks and printers containing them containing aqueous compositions of pigment, which falls within the scope of the claimed "solid coloring material", "dispersed in an AB or BAB block copolymer" which falls within the scope of "enclosed in a micelle formed of a

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block copolymer". It would appear that the patentee requires all of their pigment particles to be dispersed in the block copolymer which meets the limitations of the instant claim 2. See the abstract and entire document. The particle sizes of column 7, lines 22-26 falls within the scope of the instant claim 3. The patentee described using their inks as ink jet inks. The instant specification, page 27, lines 13-19 is taken as evidence that Ma's use of their composition in an ink jet device is evidence that the composition of Ma necessarily and inherently has the parameter of the instant claim 4. See MPEP 2112. Both pigment and polymer appear to be uniformly dispersed in the method of making the compositions of the patentee. The method of the patentee therefore falls within the scope of the instant claim 6. The ink jet printing disclosed by the patentee and the ink jet printer used fall within the scope of the instant claims 8-11.

It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the instantly claimed components in the instantly claimed form in the ink jet inks of Ma, the printer and printing methods thereof because they are disclosed by Ma and it would have required only routine experimentation to arrive at the instantly claimed invention from the disclosure of Ma and the benefits of the printing ink of Ma would have been expected to have been obtained.

9. Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pat. No. 7160934 Soga et al..

The patentee discloses oil soluble dye or pigments which are entrained within block copolymers containing polyvinylether segments (fig. 9), which falls within the scope of the instantly claimed micelles, which are dispersed in water via the action of the hydrophilic block copolymers. The patentee is silent regarding polymer size and the parameter of the instant claim

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4. The patentee described using their inks as ink jet inks. The instant specification, page 27, lines 13-19 is taken as evidence that Soga's use of their composition in an ink jet device is evidence that the composition of Ma necessarily and inherently has the parameter of the instant claim 4. See MPEP 2112. The viscosity of the ink is a function of particle size. The PTO has no facilities to make determinations as to particle size. It is the examiner's position that the patentee's reference to the block copolymer being "soluble" indicates very small size for the polymer. The figures 2-6 indicate even smaller sizes for the colorant particles, which are expected to fall within the scope of the instant claims 3 and 11 considering the smallness of the soluble particles they are within and the viscosities of the ink. See MPEP 2112. The oil soluble dyes of the patentee will dissolve in the solvents of the patentee, such as those used in the examples, the block copolymer is said to be soluble in the water, with such "solutions" being molecular dispersions minimally, which meets the process steps of claims 6 and 7, particularly since the migration of the dye or pigment into the block polymer gives the instantly claimed micelles. The ink jet printer and printing methods using the above discussed compositions meet the instant claims to the corresponding inventions respectively.

10. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 7160934 Soga et al..

The patentee discloses oil soluble dye or pigments which are entrained within block copolymers containing polyvinylether segments (fig. 9), which falls within the scope of the instantly claimed micelles, which are dispersed in water via the action of the hydrophilic block copolymers. The patentee is silent regarding polymer size and the parameter of the instant claim

4. The patentee described using their inks as ink jet inks. The instant specification, page 27,

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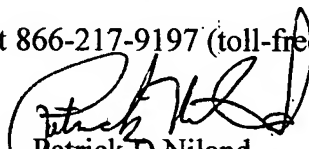
lines 13-19 is taken as evidence that Soga's use of their composition in an ink jet device is evidence that the composition of Ma necessarily and inherently has the parameter of the instant claim 4. See MPEP 2112. The viscosity of the ink is a function of particle size. The PTO has no facilities to make determinations as to particle size. It is the examiner's position that the patentee's reference to the block copolymer being "soluble" indicates very small size for the polymer. The figures 2-6 indicate even smaller sizes for the colorant particles, which are expected to fall within the scope of the instant claims 3 and 11 considering the smallness of the soluble particles they are within and the viscosities of the ink. See MPEP 2112. The oil soluble dyes of the patentee will dissolve in the solvents of the patentee, such as those used in the examples, the block copolymer is said to be soluble in the water, with such "solutions" being molecular dispersions minimally, which meets the process steps of claims 6 and 7, particularly since the migration of the dye or pigment into the block polymer gives the instantly claimed micelles. The ink jet printer and printing methods using the above discussed compositions meet the instant claims to the corresponding inventions respectively.

It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the instantly claimed components in the instantly claimed form in the ink jet inks of Soga, the printer and printing methods thereof because they are disclosed by Soga and it would have required only routine experimentation to arrive at the instantly claimed invention from the disclosure of Soga and the benefits of the printing ink of Soga would have been expected to have been obtained.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Patrick D Niland
Primary Examiner
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